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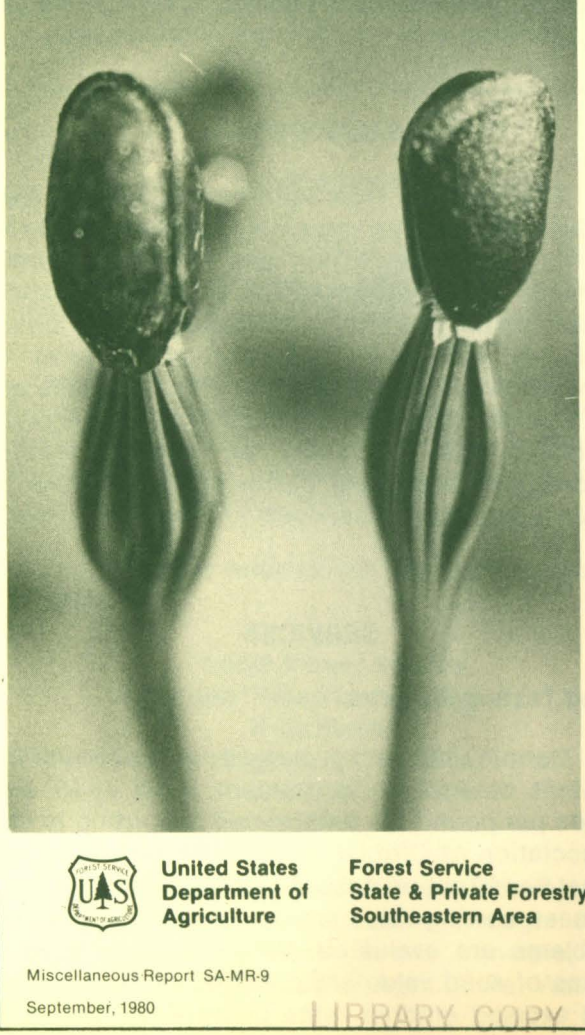
NATIONAL TREE SEED LABORATORY

"Service Today For Production Tomorrow"



United States Department of Agriculture

Forest Service
State & Private Forestry
Southeastern Area

Miscellaneous Report SA-MR-9

September, 1980

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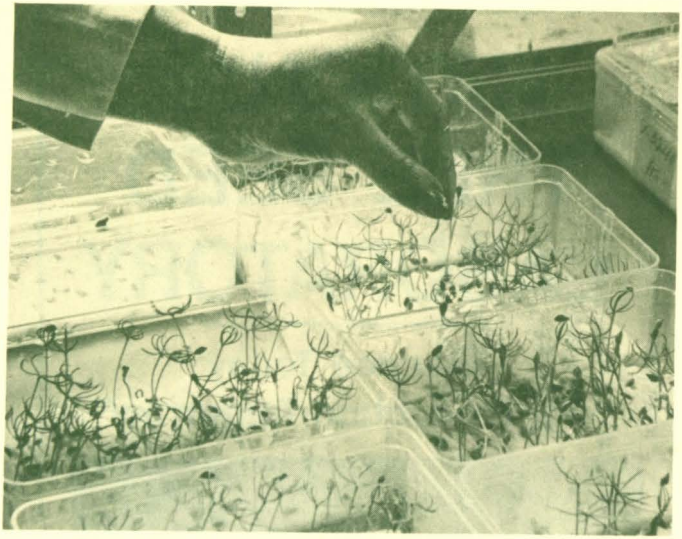
ROCKY MT. FOREST & RANGE
EXPERIMENT STATION



Counting and recording germinated seeds

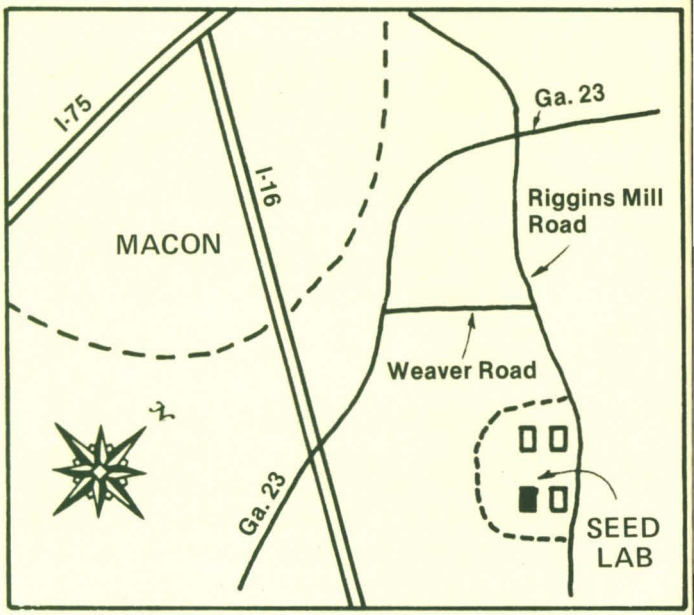
INTRODUCTION

The National Tree Seed Laboratory operates under a cooperative agreement between the Georgia Forestry Commission and the USDA Forest Service. This modern tree and shrub seed testing facility provides services to States, forest industries, and individuals in support of improved regeneration practices. Many of these services are not available elsewhere. Laboratory personnel coordinate with all State agricultural testing laboratories and State certification agencies to avoid duplication of services.

SERVICES

Seed Testing Services

Germination tests, purity analysis, moisture content determination, percent filled seed and seeds per pound are determined according to the Association of Official Seed Analysts or International Seed Testing Association regulations. Upon request, sowing rates are calculated and special problems are evaluated. When necessary, estimates of seed value are provided by tetrazolium and excised embryo tests or by X-ray analysis.



LOCATION

The National Tree Seed Labortory is located at the Georgia Forestry Center, 6 miles (10 km) southeast of Macon, on Riggins Mill Road.

Visitors are welcome at the National Tree Seed Laboratory between the hours of 8 AM and 4:30 PM, Monday through Friday, except for Federal holidays. Arrange for group tours by telephoning (912) 744-3311.

For further information and current charges write to:

USDA Forest Service
National Tree Seed Laboratory
P. O. Box 819
Macon, GA 31298
USA

All services are available without regard to race, color, creed, sex, or national origin. If you know of any violations of this principle, send details to the Secretary of Agriculture, Washington, D.C. 20250.

Cone Analysis Service

A 10-cone sample can be analyzed for seed production or 10 individual cone samples may be evaluated for production potential. Dissection of individual cones provides information on the number of seeds the cone could have produced, the number of seeds it actually produced, and the cause of the seed losses. Following an X-ray analysis of the seed, the sound seeds are germinated to determine viability.

Categorizing cone scales in cone analysis test

Special Processing Service

The lab will assist nursery personnel in processing small seed lots (less than 50 bushels) if commercial assistance cannot be found. Lab personnel will also evaluate small samples (about 10 pounds of pine seed) to solve processing problems. These solutions will provide operation guides for nursery personnel and seed workers. For more information on specific problems contact the Director, National Tree Seed Laboratory.

Forest Tree Seed Center

The U.S. Forest Tree Seed Center is another function of the Seed Lab. Its primary purpose is to furnish small lots of native tree and shrub seed to forest researchers **outside** the United States. The Center can provide information on international import and export requirements, and assist United States foresters with foreign requests.

Additional Services

It is important to periodically check processing operations for damage. The National Tree Seed Laboratory will do this without charge to help promote improved regeneration practices. To check your operations, collect samples from a single seed lot after each seed processing operation. Label the seed samples and send them to the lab. The seed will be analyzed with radiography and germinated. When the analysis is completed, you will get a full report.

Upon request, trained personnel will evaluate a processing plant, make recommendations on the present operation, and suggest changes to improve plant operations.

Your specialists may also come to the lab for training in seed collection, processing, handling, storage, testing and certification. Official requests should be made to the Area Director, Southeastern Area, USDA Forest Service, 1720 Peachtree Road, NW, Atlanta, Ga. 30367.

Informational Assistance

Upon request, the National Tree Seed Laboratory will provide information in the areas of seed collection through processing, handling, testing, storage, sowing, and certification.

The *National Forest Reproductive Materials Clearinghouse* notice is distributed each Friday from November to April, on the need or availability of seed or seedlings.

In addition, a mid-summer edition of the *Clearinghouse* is distributed to provide for special requests for the following growing season.

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

National Tree Seed Laboratory
P. O. Box 819
Macon, GA 31298

OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE, $300

AN EQUAL OPPORTUNITY EMPLOYER